

REMARKS/ARGUMENTS

Applicants first note that the official publication (US2004/0066499 A1) of this application does not properly reflect the application as filed. Specifically, the text beginning at the word "bridge" on line 3 of paragraph [0030] of the publication through the word "increased" on line 12 of paragraph [0032] does not belong to this application. In addition, the publication is missing parts of the application that correspond to this section. Accordingly, applicants respectfully request that paragraphs [0030], [0031], and [0032] of the publication be replaced with the text at page 7, line 33 to page 9, line 7 of the Specification, as was originally filed.

Applicants note with appreciation that the Examiner has indicated that claims 3, 13, 15, and 17 are allowed. Applicants also bring to the Examiner's attention an inconsistency in the Office Action. In addition to allowing claim 17, the Examiner also rejected claim 17 in Section 4 of the Action. Applicants assume that the Examiner made a typographical error regarding the rejection of claim 17 given that the claim depends from independent claim 3, which the Examiner indicated as allowed. Accordingly, applicants respectfully request that the rejection of claim 17 be withdrawn.

The Examiner indicated that claims 1, 2, 3, and 6 are replete with the misuse of the word "the". In response thereto, applicants have amended claims 1, 2, 3, and 6 to correctly use "the," "a," and "an".

The Examiner rejected priorly presented claims 1, 2, 5, 8, 9, and 12 as unpatentable, 35 USC 102(e), in view of Doemens et al., patent 6,636,300, October 21, 2003 (hereinafter Doemens). In response thereto, applicants have amended claims 1 and 2 to more clearly recite that applicants' invention uses multiple measured intensities and is thereby based on the triangulation principle for measuring distance. On the contrary, Doemens uses the time travel of light to determine distance. Such a measuring principle as taught by Doemens is completely different from and not related to the triangulation principle as recited by amended claims 1 and 2 and as such, Doemens fails to teach or suggest applicants' invention.

More specifically, Doemens teaches a system comprising multiple light-sources and multiple receiving elements. According to Doemens, a given light source will transmit a pulse to an object. This pulse will reflect off the object and return to a given receiving element. Based on

the intensity of the reflected light pulse received at the receiving element, the travel time of the pulse is determined. From this travel time a distance is then calculated. (Doemens, column 3, lines 23-25; column 5, lines 14-16). As can be seen, Doemens uses the travel time of reflected light to determine distance.

Amended claim 1 recites a system comprising a light source for emitting a light beam and at least two detectors for measuring the intensity of reflected source light. Based on a ratio, as determined by a processing circuit, between the measured intensities of reflected light, a distance is obtained. Similarly, amended claim 2 recites a system comprising at least two light sources and a detector for measuring the intensities of reflected source light. Again, based on a determined ratio between the measured intensities of reflected light at the detector, a distance is obtained. Accordingly, contrary to using the travel time of light to determine distance, claims 1 and 2 are based on the triangulation principle, using a ratio between measured light intensities to determine distance. Because the triangulation principle for measuring distance is completely divergent from Doemens' method of using the time travel of light, claims 1 and 2, together with dependent claims 5, 8, 9, and 12, are novel in view of Doemens.

The Examiner rejected priorly presented claims 10 and 16 as unpatentable, 35 USC 103(a), over Doemens. Claims 10 and 16 depend from claims 1 and 2 respectively and are therefore novel and non-obvious in view of Doemens for the same reasons set forth above.

The Examiner rejected priorly presented claim 6 as unpatentable, 35 USC 102(b), in view of Ogino et al., patent 4,384,199, May 17, 1983 (hereinafter Ogino). Amended claim 6 recites a device comprising a single lens with distinct emitting and receiving sectors, and comprising two prisms one for each sector and for respectively focusing light beams for emitting and receiving elements. The Examiner indicates that Ogino teaches every element of claim 6. Applicants' respectfully disagree because rather than teaching the use of two prisms as recited by claim 6, Ogino only teaches the use of one prism (Ogino, element 4). Accordingly, Ogino fails to anticipate claim 6.

In addition, Ogino fails to obviate the use of two prisms as recited by claim 6. Ogino teaches an auto focus system whereby a lens (1) is automatically adjusted to create an "in-focus" image of a distant object on a film surface (6). Ogino performs this auto-focusing of the lens (1)

using a "Through The Lens" focus device that comprises a radiation source (2), a sensor array (3), and the prism (4). To focus the lens, the radiation source transmits a ray at the prism, which forwards the ray through the lens(1) to an object. This ray then reflects off the object and back through the lens to the prism, which now forwards the reflected ray to the sensor array.

Depending on how the sensor array detects the reflected ray, the lens is adjusted to create an "in-focus" image of the object on the film surface (6). It appears to applicants that to use this "Through The Lens" focus technique, the radiation source (2) and the sensor array (1) cannot obstruct the film surface (6). Ogino prevents this obstruction through the prism (4), which allows the radiation source (2) and sensor array (1) to be placed off to the sides relative to the film surface (6) (see Ogino Figure 4). The reason for applicants' use of two prisms is to create a compact device (see Specification, page 7, line 33 to page 8, line 13; Figure 6). It appears to applicants that for Ogino to use two prisms, as recited by claim 6, would cause the radiation source (2) and sensor array (1) to be moved to a position that would obstruct the film surface (6). However, this would defeat the objective of Ogino's system. Accordingly, nothing in Ogino motivates the use of two prisms and as such, Ogino fails to obviate claim 6.

The Examiner rejected priorly presented claims 7 and 14 as unpatentable, 35 USC 103(a), over Doemens in view of Ogino. In particular, the Examiner indicates that Doemens teaches claims 1 and 2, that Ogino teaches the limitations of claims 7 and 14, and that it would be obvious to combine the teachings of Ogino and Doemens. First, claims 7 and 14 recite a combination of elements similar to claim 6 and as such, Ogino fails to teach or suggest claims 7 and 14 for the same reasons as claim 6. Second, Doemens system relies on a divider mirror (8) to ensure that a pulse from a selected one of the multiple light sources is reflected back to a selected one of the multiple receiving elements. It appears to applicants that if the prism of Ogino was inserted in the system as taught by Doemens, the prism would conflict with the divider mirror, causing the Doemens system to not operate. As such, there is no motivation for combining the prism of Ogino with the system of Doemens. Accordingly, applicants respectfully submit that claims 7 and 14 are novel and nonobvious over Doemens in view of Ogino.

Since Doemens and Ogino do not teach or suggest applicants' novel systems alone or in

combination as set forth in amended claims 1, 2, 4-12, 14, and 16, applicants submit that these claims are clearly allowable. Favorable reconsideration and allowance of these claims are therefore requested.

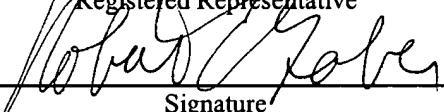
Applicants earnestly believe that this application is now in condition to be passed to issue, and such action is also respectfully requested. However, if the Examiner deems it would in any way facilitate the prosecution of this application, he is invited to telephone applicants' counsel at the number given below.

A petition for a one-month extension of time is enclosed herewith.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 27, 2004:

Robert C. Faber

Name of applicant, assignee or
Registered Representative

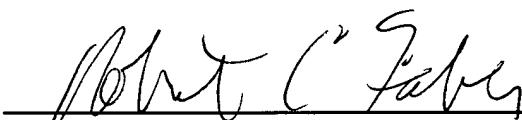


Signature

September 27, 2004

Date of Signature

Respectfully submitted,



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